

The Thysanoptera of Chile

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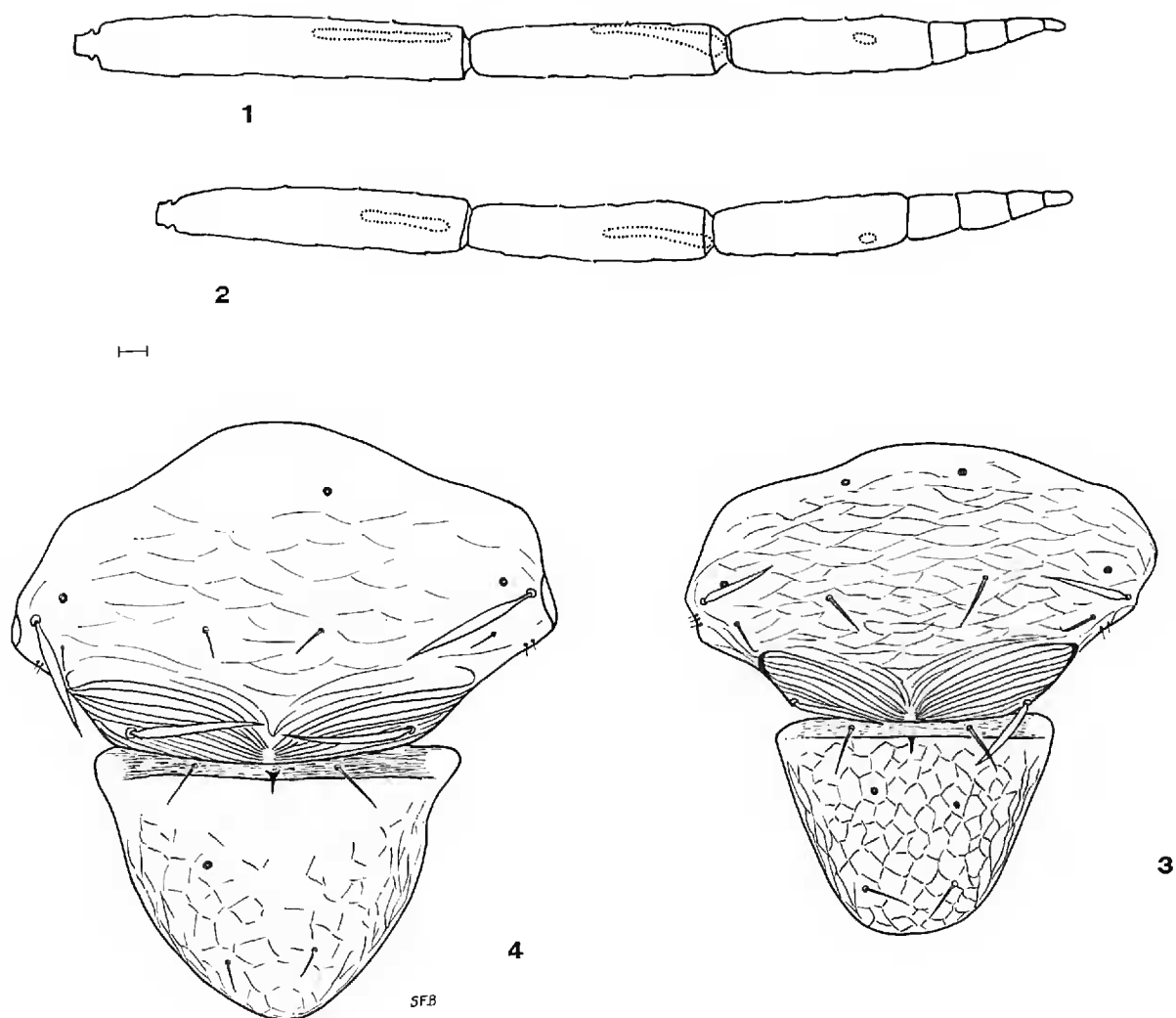
More than 100 years have elapsed since the first study of this group of insects was made in Chile when Blanchard (1851) described seven species from this country. In 1919, Porter summarized the knowledge of the group and pointed out the economic importance of two species. Moulton (1926, 1930) described two new species and recorded four additional species as occurring in this part of South America. Hood (1931) added one new species. In 1932–1933, Moulton brought together all the information on this group of insects in a series of articles. We now add seven additional species to the list which brings the total to 22. The paucity of knowledge of the thrips of this country points up the opportunity for future study as there are doubtless many more species present in Chile. The species previously reported from Chile are *Aeolothrips fasciatus* Linnaeus, *Anaphothrips secticornis* Trybom, *Chirothrips manicatus* Haliday, *Dorythrips chilensis* Hood (Bailey, 1954) *Graphidothrips stuardoi* Moulton. Blanchard (1851) described (in addition to *Aeolothrips fasciatipennis*) *Thrips femoralis*, *T. annulicornis*, *T. striaticeps*, *T. rugicollis*, *T. tibialis*, and *T. laevicollis*. Moulton (1933) stated that "The descriptions (of Blanchard) are incomplete and the species cannot be properly identified or placed." The location of the types is unknown to us. During 1956–1958, 56 thrips collections were made principally by J. Matte. Other collectors were J. Lopez, M. Mario, F. Larrain, G. Herrera, N. Hichins, L. Campos, and R. Gonzalez. Our report is based on this material.

Aeolothrips fasciatipennis Blanchard, 1851.—This species of *Aeolothrips* is very close to *A. fasciatus*. In 1933, Moulton pointed out some comparative characters. The six specimens we have at hand have been compared with typical *A. fasciatus*. Comparative measurements (in mm) are as follows:

	Antennal Segments				Sensoria (length)	
	III	IV	V	VI to IX	III	IV
<i>A. fasciatus</i>	0.118– 0.124	0.086– 0.109	0.073– 0.080	0.067– 0.073	0.025– 0.044	0.032– 0.054
<i>A. fasciatipennis</i>	0.135– 0.160	0.099– 0.102	0.076– 0.086	0.044– 0.060	0.048– 0.067	0.054– 0.064

The antennae are longer in the Chilean species. (Figs. 1 and 2). The

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EXPLANATION OF FIGURES

Fig. 1. Antenna of female *Aeolothrips fasciatipennis* Blanchard, Segments III-IX. Fig. 2. Antenna of female *A. fasciatus* Linnaeus, Segments III-IX. Fig. 3. Meso- and metanota of female *A. fasciatus*. Fig. 4. Meso- and metanota of female *A. fasciatipennis*. All drawings made with camera lucida. Magnification: reference line (see Fig. 2) equals 0.01 mm.

total length of segments III-IX ranging from 0.378 mm to 0.418 mm; in *A. fasciatus* the measurements vary from 0.351 to 0.378 mm. In addition to the bases of the femora being light brown in Blanchard's species, the bristle pattern on the mesonotum is another character of use in separating them. The center pair of bristles are much more delicate and shorter than the heavy mid-laterals and posterior pair. Furthermore, the sculpturing on the mesonota and metanota is much fainter and nearly without polygonal areas, clearly seen on *A. fasciatus* (Figs. 3 and 4). When males are available for study the genitalia should exhibit additional differences. This species having been practically unknown for over 100 years, now appears to be a common insect in this country. We are designating one of the six female specimens studied as the neotype. It was

collected at Ocoa, Province of Valparaiso, 17 December 1957, on *Marubium vulgare* by J. Matte. Other specimens were from Hijuelas, Quillota, and Pochochay on *Rosa*, *Salix*, and *Spartium* in November and February, all taken by J. Matte. This neotype is in the senior author's collection.

A further comment may be made on the difficulty of making positive identifications in the *Aeolothrips fasciatus* complex. It now appears that, as more specimens become available, "series" or other categories will have to be established for this group to better handle taxonomically the variations on such a polymorphic species. Based on the information available at present, we consider *A. fasciatipennis* and *A. fasciatus* to be distinct species.

Like its common and widespread relative it appears to have general distribution as the following records indicate:

Valparaiso: Hijuelas, on Mimbre (*Salix viminalis* L.) and Boldo (*Boldea boldus*); Ocoa, on maicillo (*Sorghum halepensis*) and cicuta (*Conium maculatum* L.); Pochochay, on retamo (*Spartium junceum*); Quillota, on rose; San Isidro (Quillota), on corn.

NEW RECORDS FOR CHILE

Limothrips cerealium Haliday, the European grain or cereal thrips.

Valparaiso: Ocoa, on tomato, maicillo (*Sorghum halepensis*), and cicuta (*Conium maculatum* L.). Talca: Penciahue, under grape bark.

Limothrips angulicornis Jablonowski.

Valparaiso: Ocoa, on wheat; Pochochay, on alcayota (*Cucurbita sicifolia* Buche).

Drepanothrips reuteri Uzel, the European grape or vine thrips. It is very likely it was introduced in soil with grape seedlings.

Valparaiso: Pochochay, on grape.

Anaphothrips zae Moulton

Valparaiso: Hijuelas, on junco (*Juncus graminifolius* E. Mey); Ocoa, on cicuta (*Conium maculatum* L.); Pochochay, on lirio (*Iris cristata*). Santiago: La Rincondada, on corn.

Heterothrips sp. It is not surprising to find this genus represented. There are many species known from Brazil. It is interesting to note that, to date, none of the North American species (Bailey & Cott, 1954) are known in South America or vice versa.

Santiago: San Jose de Maipo, on bollen o guaye (*Kageneckia obloga*).

Liothrips sp. This representative of the very large, worldwide genus which contains over 115 species, reminds one of the large *L. varicornis* Hood.

Valparaiso: La Cruz, on avocado (palto); Lliu-Lliu, on *Peumus boldus*.

Haplothrips niger (Osborn). It is not surprising that this common European and North American thrips has found its way to Chile.

Valparaiso: La Cruz, on alfalfa.

OTHER SPECIES IDENTIFIED

Aptinothrips rufus Gmelin

Valparaiso: Hijuelas, on junco (*Junco graminifolius* E. Mey).

Heliothrips haemorrhoidalis Bouché, greenhouse thrips. It is to be expected that this common economic species would be transported about on potted plants, ornamentals, etc. It apparently was well established when first reported by Porter in 1919.

Coquimbo: Haullilinga, on chirimoya (*Anona cherimolia*). Valparaiso: La Cruz, on avocado (palto). Santiago: Maipo, on pears. O'Higgins: La Rosa, on grapes.

Frankliniella cestrum Moulton. The very large genus of flower-inhabiting thrips, *Frankliniella*, is abundantly represented in South America. In Chile, *F. cestrum* Moulton, appears to be the most common. Together with the cosmopolitan onion thrips, it has a long list of hosts and can be expected to be a garden and ornamental pest some seasons (Porter, 1923, 1924). The species in this large genus are variable and difficult to identify.

Coquimbo: Los Cruces, on grape flowers; Ovalle, on grape. Aconcague: Los Andes, on corn. Valparaiso: Hijuelas, on wheat, *Peumus boldus*, artichoke (*Cynara scolymus* L.), mimbre (*Salix viminalis* L.), and junco; Ocoa, on cicuta (*Conium maculatum* L.) and toronjil cuyano (*Marrubium vulgare*); Pochocay, on grape, beans, gladiolus, and retamo (*Spartium junceum*); Puchuncavi, on lentils (*Lens sculenta* L.); Quillota, on rose; San Isidro (Quillota), on cala lily (*Zantedeschia aethiopica*); Tabolango, on *Peumus boldus*. Bio-Bio: Mulchen, on beans. Santiago: Cajon del Maipo, on *Trevoa toinervis*.

Thrips tabaci Lindeman, onion thrips.

Atacama: Copiapo, on onion. Coquimbo: Ovalle, on grape. Valparaiso: Hijuelas, on mimbre (*Salix viminalis* L.), junco (*Juncus graminifolius* E. Mey), potato, and hinojo (*Foeniculum vulgare* Hill); La Cruz, on alfalfa; Llay-Llay, on sunflower (*Helianthus annuus* L.) and onion; Ocoa, on garlic, tomato, wheat, maicillo (*Sorghum halepensis*), cicuta (*Conium maculatum* L.), and toronjil cuyano (*Marrubium vulgare*); Pochocay, on grape, retamo (*Spartium junceum*), beans, peas, gladiolus, lirio (*Iris cristata*), and alcayota (*Cucurbita siciifolia*); Puchuncavi, on lentils (*Lens sculenta* L.); Quillota, on onion and rose; San Isidro (Quillota), on parsley, oreganum, cabbage, squash, and beans. Bio-Bio: Mulchen, on beans.

Remarks on future thrips collecting: There remain large numbers of species to be collected from Chile. Collections made from the flowers of shrubs and perennials at or near the end of the rainy season should include several aeolothripids related to and including *Dorythrips* as well as the widespread *Taeniothrips* species. Spider mite infestations on trees and vines perhaps will show *Scolothrips* or possibly *Franklinothrips* species to be beneficial.

Fungus feeding species in the suborder Tubulifera should be found in the regions of higher rainfall, such as those south of the Bio-Bio river and the foothills of the Andes as far north as San Fernando. In the

drier portions of the country, namely north of the River Maule, such common genera as *Haplothrips*, *Leptothrips*, and *Phlaeothrips* will undoubtedly be collected near the end of the rainy season. Collections should be made by beating dead bushes and limbs, shaking loose bark over white cloth or paper, screening leaf mold and sweeping perennial and annual plants. Burned-over areas as well as land which is flooded annually should be avoided. Special collecting methods should be employed for cacti, as well as the examination of leaf galls, hollow stems, and beetle burrows. The most unusual and interesting types of thrips probably will be discovered in such niches. In general, the greatest number of species could be expected in the temperate regions of the country with 500–1,000 mm of rainfall, mild winter temperatures, and the greatest variety of native plants. The promising collecting areas, following Almeyda's division of the country (1958) should be the southern part of the "matorral" and northern portion of the "parques" zones. The most productive local collecting areas should be the margins of moist meadows at the edge of native woods and streams. Thrips usually reach their greatest seasonal abundance in early summer (November in Chile) in a climate having a definite dry season following a mild, rainy winter. Such conditions will be found at elevations below 200 m in the province of Bio-Bio and up to 1,500 m in the province of Santiago.

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ZOOLOGICAL NOMENCLATURE: Notice of proposed use of plenary powers in certain cases (A. [n.s.] 66).

In accordance with a decision of the 13th International Congress of Zoology, 1948, public notice is hereby given of the possible use by the International Commission on Zoological Nomenclature of its plenary powers in connection with the following cases, full details of which will be found in *Bulletin of Zoological Nomenclature*, Vol. 21, Part 5, published on 26 November 1964.

(2) Designation of a neotype for *Lygaeus quadratus* Fabricius, 1798 (Insecta, Hemiptera). Z.N. (S.) 1560;

(9) Suppression of *Laemophloeus immundus* Reitter, 1874 (Insecta, Coleoptera). Z.N. (S.) 1649.

Any zoologist who wishes to comment on any of the above cases should do so in writing, and in duplicate, as soon as possible, and in any case before 26 May 1965. Each comment should bear the reference number of the case in question. Comments received early enough will be published in the *Bulletin of Zoological Nomenclature*. Those received too late for publication will, if received before 26 May 1965, be brought to the attention of the Commission at the time of commencement of voting.

All communications on the above subject should be addressed as follows: The Secretary, International Commission on Zoological Nomenclature, c/o British Museum (Natural History), Cromwell Road, London, S. W. 7, England.—W. E. CHINA, *Acting Secretary to the International Commission on Zoological Nomenclature*.